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MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) COMPLIANCE INSPECTION

CITY OF SEATTLE, WASHINGTON

INSPECTION REPORT

Inspection Dates:
July 15-16, 2013

Report Date:
September 30, 2013

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Section 1.0 Introduction

On July 15–16, 2013, the U.S. Environmental Protection Agency (EPA), Region 10 and an EPA contractor, PG Environmental, LLC (hereinafter, collectively, the EPA Inspection Team) conducted an inspection of the Municipal Separate Storm Sewer System (MS4) Program of the City of Seattle, Washington. Discharges from the City of Seattle's MS4 are regulated under the *Phase I Municipal Stormwater Permit – National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Discharges from Large and Medium Municipal Separate Storm Sewer Systems* (hereinafter, the Permit; see Appendix A), issued by the State of Washington Department of Ecology (Ecology) and effective September 1, 2012. The City of Seattle (hereinafter, the City) maintains coverage under Permittee Coverage No. WAR04-4503. Permit modifications became effective on June 17, 2009 and September 1, 2010. The Permit expired on February 15, 2012, and on August 1, 2012 Ecology reissued the Permit, with limited changes, effective September 1, 2012 through July 31, 2013. The County initially received coverage under NPDES municipal stormwater permits issued by Ecology in 1995.

The Permit authorizes the City of Seattle to discharge stormwater and certain non-stormwater flows to surface waters and to groundwaters of the state from the MS4 owned or operated by the City in the permitted area (defined as areas covered by the Phase I Municipal Stormwater Permit) under the Permit terms and conditions. Section S5.A of the Permit requires the City to implement a Stormwater Management Program (SWMP). The Seattle Public Utility (SPU) NPDES Coordinator confirmed that the City is currently operating under the *2013 NPDES Phase I Municipal Stormwater Permit Stormwater Management Program*, dated March 2013 (hereinafter, 2013 SWMP Plan; see Appendix B).

Seattle, a city on Puget Sound, is located in the western part of the state. According to City staff, the permitted area encompasses approximately 53,113 acres with 11.6 people per acre, as of 2012. City staff also stated that approximately 49 percent of the land use in the City is single family residential. City staff explained that three types of stormwater drainage systems exist in the City: ditch and culvert, public storm drain, and public combined sewer. The City's MS4 is composed of the ditch and culvert and public storm drain systems. City staff also stated that the City's MS4 includes about 28,000 catch basins which discharge to local waterways including Lake Washington, the Duwamish River, the Ship Canal/Lake Union, and eventually the Puget Sound.

According to Executive Order 01-08 from the Office of the City of Seattle Mayor, SPU serves as the lead department in all matters related to City compliance with the Permit and all City departments shall coordinate to comply with the requirements of the NPDES permit. In addition, the City has a memorandum of agreement (MOA) between the Seattle Department of Transportation (SDOT) and SPU for the implementation of green stormwater infrastructure (GSI) to mitigate stormwater impacts and meet stormwater code requirements. An interdepartmental MOA also exists between Seattle Department of Parks and Recreation (Parks) and SDOT for use of a street sweeper. In addition, a

memorandum of understanding (MOU) exists between the Department of Planning and Development (DPD) and Parks which clarifies when a permit is required for a Parks project and clarifies expectations for the review of Parks projects by DPD in the circumstances when a Park's project may be exempted from a permit. The City also has an MOA with Washington State University for bioretention soil testing and bioretention facility stormwater monitoring. In addition, the City has an interagency agreement with the Port of Seattle (Port) stating that the Port shall comply with all substantive requirements of the City's code.

With respect to the Permit, the City's NPDES responsibilities are carried out by various City departments and divisions that are responsible for implementing the stormwater program. The City's departments and divisions with roles in the 2013 SWMP Plan include:

- Department of Utilities and Transportation
    - City Light
    - Seattle Public Utilities
    - Seattle Department of Transportation
- Department of Administration
    - Department of Finance and Administrative Services
- Department of Neighborhoods and Development
    - Department of Planning and Development
- Department of Arts, Culture & Recreation
    - Department of Parks and Recreation
- City Attorney

The purpose of the inspection was to obtain information that will assist EPA in assessing the City's compliance with the requirements of the Permit, as well as the implementation status of the current MS4 program. The inspection schedule is presented as Appendix C.

The EPA MS4 program compliance inspection evaluated facilities, activities, and projects within the City. The inspection focused on the following SWMP components described in section S.5 of the Permit:

- Controlling Runoff from New Development, Redevelopment and Construction Sites.
- Source Control Program for Existing Development.
- Operation and Maintenance Program.
- MS4 Mapping and Documentation.
- Illicit Connections and Illicit Discharges Detection and Elimination.

The EPA Inspection Team did not observe deficiencies regarding the City's Source Control Program for Existing Development, MS4 Mapping and Documentation, or Illicit Connections and Illicit Discharges Detection and Elimination Program during the inspection; therefore, no further discussion of these components is included in this report.

The EPA Inspection Team obtained information through interviews with representatives from the City's departments and divisions listed above, along with a series of site visits, record reviews, and field verification activities within the City. The office sessions were held to obtain information regarding overall program management, program evaluation, and oversight. In addition, the EPA Inspection Team held a closing conference at the City offices on July 16, 2013, with representatives from the respective departments attending.

The primary representatives involved in the inspection were the following:

City of Seattle MS4 Program Compliance Inspection: July 15-16, 2013	
City of Seattle – Department of Neighborhoods and Development, Department of Planning and Development (DPD)	Andy Higgins, DPD Engineering Services Manager Michelle Macias, DPD Drainage Supervisor Dave Cordaro, Manager DPD Construction Inspectors
City of Seattle – Department of Arts, Culture & Recreation, Department of Parks and Recreation	Dan Johnson, Parks Division Director Michael Shiosaki, Parks Planning and Development Director Cheryl Eastberg, Coordinator Patrick Morgan, GIS Professional Robert Stowers, Parks Resources Manager Rudy Kollar, Drainage and Wastewater Crew Chief Chris Jewell, Construction Manager
City of Seattle – City Light	Mary Yoder-Williams, Senior Environmental Analyst Bill Devereaux, Environmental Management and Compliance Manager Pam Hamlin, Civil Engineer
City of Seattle – Seattle Public Utilities	Kate Rhoads, Municipal Stormwater Specialist Kevin Buckley, Strategic Advisor Sherell Ehlers, Stormwater Policy Advisor Nancy Ahern, Utility Systems Management Branch, Director Ingrid Wertz, Supervisor of Regulatory Group Frank McDonald, Manager, Maintenance Planning and Scheduling Julie Crittenden, Planning, Policy and Regulatory Drainage and Wastewater Manager

	Ellen Stewart, Source Control Supervisor Tim Croll, Acting Director of Drainage and Wastewater Adam Bailey, Inspector Elaine Eberly, Utility GIS Gary Lockwood, Senior Project Coordinator Marina Torralba, Management System Analyst Tracy Tackett, GSI Program Manager Tanya Treat, Wastewater Drainage Adam Bailey, Inspector
City of Seattle – Seattle Department of Transportation (SDOT)	Kenny Alcantara, Manager Maureen Meehan, NPDES Advisor Greg Izzo, SDOT Operations Brian dePlace, SDOT Right of Way Manager Danielle Priest, SDOT Street Use and Urban Forestry Division Manager Lorelei Williams, Capital Projects Manager Roxanne Thomas, Maintenance and Operations Manager Mark Sliger, Construction Management
City of Seattle – Department of Administration, Finance and Administrative Services (FAS)	Chris Potter, Facility Operations Division Director David Loy, Systems Analyst Nonila Masmela, Project Manager John Sheldon, Facilities Management Manager Teresa Rodriguez, Project Manager
City of Seattle – Field Operations and Maintenance (FOM)	Teresa Burch-Ko, Planner Jonathan Batara, CIP Coordinator Leeanne Wooden, Management Systems Analyst Diana Caytton, MAXIMO Data Administrator Shab Zand, Senior Environmental Analyst Deria Donofno, Civil Engineer
Washington State Department of Ecology Representatives	Chris Montague-Breakwell, Stormwater Permit Manager Rachel McCrea, Municipal Stormwater Specialist

EPA Representatives	Julie Congdon, MS4 Inspector and Enforcement Coordinator Dustan Bott, MS4 Inspector
EPA Contractors	Wes Ganter, PG Environmental, LLC Candice Owen, PG Environmental, LLC Kettie Holland, PG Environmental, LLC

Section 2.0 Information Obtained Regarding Compliance with the Permit

Prior to the inspection, the EPA Inspection Team formally requested the City to provide specific documentation for review by the team and to have specific documentation available for review at the time of the inspection. The EPA Inspection Team provided the City with a written list of requested records on May 29, 2013 (hereinafter, EPA Records Request; see Appendix D, Exhibit 1). In response, on July 1, 2013, the City provided the EPA Inspection Team with an email including electronic copies of the documents requested. In addition, the City made additional documents available during the inspection and provided documents on a flash drive after the inspection. The complete spreadsheet and associated documents are hereinafter referred to as the City of Seattle Response Inventory, which is presented as Appendix D, Exhibit 2. The EPA Records Request and City of Seattle Response Inventory are referenced, as applicable, throughout this inspection report.

During the inspection, the EPA Inspection Team obtained documentation and other supporting evidence regarding compliance with the Permit and implementation of the City's 2013 SWMP Plan. The presentation of inspection observations in this report does not constitute a formal compliance determination or notice of violation; rather, it identifies potential program deficiencies. Program deficiencies are areas of concern for successful program implementation. All referenced documentation used as supporting evidence is provided in Appendix D, Exhibit Log; photo documentation is provided in Appendix E, Photograph Log.

During the inspection, the EPA Inspection Team identified a number of elements of the City's MS4 program that were noteworthy:

1. The City's Source Control (SC) and Illicit Connections and Illicit Discharge Detection and Elimination (IDDE) programs appeared to be highly effective. The Source Control Division has five main focuses: (1) detecting and eliminating illicit discharges; (2) conducting business inspections; (3) responding to spills; (4) conducting surface water quality inspections; and (5) conducting stormwater inspections of privately owned treatment and flow facilities. The first two focuses contain noteworthy elements.

   For the City's IDDE program, staff utilized a geographic information system (GIS) to identify outfall points and track illicit discharge locations. City staff explained that by using the GIS program they had the ability to start at the outfall point and trace back through the system to identify the source of an illicit discharge.

   The business inspection program appeared to be well established, having standard operating procedures (SOPs) and qualified inspectors. The program had implemented an audit schedule for local business inspections based on the capacity of the business to generate pollutants which might contaminate

stormwater. After compiling a prioritized list of local businesses, the City began conducting stormwater pollution prevention audits. During these audits, inspectors examined storm drains, facilities, and activities, as well as educated business owners about the stormwater system and best management practices (BMPs) for the specific site. Furthermore, the City worked with a local consultant to determine the effectiveness of the business stormwater pollution prevention audits. With the consultant, the City developed a telephone survey to administer to the audited businesses. The survey addressed whether the interviewees remembered the audit and if they had implemented changes that were recommended as a result of the audit. The results of the survey provided information suggesting that business owners had an increased awareness of stormwater issues and BMPs after the audit. The City is encouraged to use similar types of surveys to measure the effectiveness of other programs.

2. The City applied a drainage fee to property owners within the SPU service area. Due to adequate resources provided in part by the drainage fee, the City had been able to appoint and maintain a large and well-qualified staff to implement its stormwater management program. For instance, the City had the resources to produce well-trained and qualified inspectors. Specifically DPD site inspectors, who were assigned to provide oversight through the entire single family residence permitting and construction process, appeared to be effective at fostering consistent oversight through the entire project life. In addition, the City led five types of Stormwater Code implementation training classes designed to educate staff on the revised Stormwater Code and Director's Rules as they relate to redevelopment and construction sites. The training classes focused on the following subjects: basic hydraulic modeling, GSI for projects in the right-of-way, GSI for parcel-based projects, overview of standard plans, and stormwater construction control training.

3. The City had established SOPs to thoroughly document its stormwater programs. For example, the City has established citation authority through Directors' Rules Volumes I–IV, giving City staff the ability to directly and easily issue citations and to conduct enforcement actions. As an example, if an illicit source or connection was identified and confirmed, the City used the progressive enforcement process detailed in *Directors' Rule 18-2009, SPU 2009-006, Volume IV – Stormwater Code Enforcement Manual* to eliminate the connection. The enforcement escalation process appeared to be well defined and consistently applied.

4. The City's data management efforts were extensive and appeared to be effective. During the interview, the MAXIMO data management system used for tracking maintenance activities was reviewed. The staff was well trained and confident in their use of the system. From the demonstration it appeared that detailed information pertaining to the maintenance of City—and to privately-owned facilities (i.e., catch basins, inlets, etc.)—could be readily retrieved from the system. In addition, staff had the ability to upload the

location and status of maintenance activities into the GIS, which provided various other departments with useful information about the location of these stormwater facilities. Overall, the City had successfully integrated data from multiple facets of its MS4 program operation and maintenance into MAXIMO and its GIS.

In addition, the City had an extensive mapping system which it was continuously updating and refining with assistance from various City departments. For example, during the inspection, staff from the SC group stated that they were populating specific GIS layers based upon findings from business inspections and locations in which illicit discharges or spills occurred. Similarly, the SPU maintenance team identified and/or confirmed the location of stormwater facilities (e.g., catch basins, pipes, inlets, etc.) and would communicate these locations to the GIS staff who would update the appropriate layers.

The GIS department maintained the base layers and provided these to other departments and divisions for their specialized use. In turn, those various departments would communicate to the GIS department about inconsistencies between the information provided in the GIS and actual field observations. This wholesale GIS approach appeared to be an effective use of knowledge and data among the various City departments and was indicative of well-developed lines of communication between the departments.

Table 1 provides a summary of the EPA Inspection Team's overall inspection observations. Descriptions and details regarding the inspection observations, as well as supporting documentation, are provided in the applicable sections of this MS4 inspection report.

Table 1. Requirements of the Permit (Permit No. WAR04-4503) and Potential Non-compliance/Program Deficiencies Identified by the EPA Inspection Team

Program Elements and Permit Requirements	Potential Non-compliance/ Program Deficiency
Controlling Runoff from New Development, Redevelopment and Construction Sites (Section S5.C.5 of the Permit) Section S5.C.5.a of the Permit states that the City's SWMP "shall include a program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities. The program shall apply to private and public development, including roads."	1. Concerns pertaining to improper installation of temporary erosion and sediment controls were noted during site visits at private construction sites. (Section 2.1.1). 2. The City did not have a standard procedure for recording inspection activities at public construction sites to ensure that thorough inspections were being conducted (Section 2.1.2). 3. Concerns were noted pertaining to consistent construction of permanent stormwater flow and treatment control

Program Elements and Permit Requirements	Potential Non-compliance/ Program Deficiency
	facilities in accordance with approved plans at private sites (Section 2.1.3). See the referenced section of the inspection report for further discussion of these issues.
Operation and Maintenance Program (Section S5.C.9 of the Permit) Section S5.C.9.a of the Permit states that the City's SWMP must "include a program to regulate maintenance activities and to conduct maintenance activities by the Permittee that prevent or reduce stormwater impacts."	1. Concerns were noted pertaining to the City's tracking system for Green Stormwater Infrastructure (GSI) facility maintenance (Section 2.2.1). 2. Concerns pertaining to improper pollution prevention practices and SWPPP implementation were noted during site visits at City-owned facilities (Section 2.2.2). See the referenced section of the inspection report for further discussion of these issues.

Section 2.1 Controlling Runoff from New Development, Redevelopment, and Construction Sites

Section S5.C.5.a of the Permit states that the City's SWMP "shall include a program to prevent and control the impacts of runoff from new development, redevelopment, and construction activities. The program shall apply to private and public development, including roads." Pursuant to the Permit, page II.5-1 of the City's 2013 SWMP Plan contains the minimum performance measures for the City's program to prevent and control the impacts of stormwater runoff from new development, redevelopment, and construction activities at private and public sites.

On July 15–16, 2013, the EPA Inspection Team conducted site visits at six construction sites. The primary purpose of the site visits was to observe the City's oversight activities including conducting and documenting inspections. The EPA Inspection Team visited the following active construction sites:

Private sites

- Sage Homes Northwest.
- Site near NW 56th Street and 28th Avenue NW.
- High Point Development site.

City-owned sites

- Washington Park Arboretum Project.
- Windermere Combined Sewer Overflow (CSO) Project.
- First Hill Streetcar Project.

No specific site deficiencies were observed at the City-owned construction sites. Erosion prevention and sediment control issues, which are presented below due to the direct relevance to the City's obligations under the Permit, were observed at the Sage Homes Northwest and High Point Development sites. All referenced photographs are contained in Appendix E, Photograph Log.

2.1.1. Concerns pertaining to improper installation of temporary sediment and erosion controls were noted during site visits at private construction sites.

Sage Homes Northwest – Townhouses at the corner of 64th Street and 36th Avenue NW; Seattle, Washington

The Sage Homes Northwest site consisted of the construction of two to three townhomes on a corner lot (see Appendix E, Photograph 1). The City Inspector stated that he would conduct a meeting with the site contractor at first ground disturbance to alert them of the expectations of the City in terms of temporary erosion and sediment controls (TESC).

The EPA Inspection Team observed the following with regard to TESC onsite:

1. Concrete wash-out waste was observed trailing from a sidewalk replacement south to a storm drain located on 36th Avenue NW (see Appendix E, Photographs 2, 3, 4, and 5). The City Inspector explained that this was not his jurisdiction since

the project was located in the right-of-way. He explained that the he would refer the issue to the City's ROW inspector and that he would make the site contractor clean up the concrete wash-out waste.

High Point Development Site – 6600 High Point Drive SW; Seattle, Washington

The High Point Development site was a multi-year, multiphase housing development project (see Appendix E, Photograph 6). It was slated to contain 58 houses which would be split between private and publicly funded lower income. Due to the site's size and geotechnical complexity, the City had required the project to retain a geotechnical engineer to be responsible for TESC onsite.

The EPA Inspection Team observed the following with regard to TESC onsite:

1. A silt fence in the northeast corner of the site was in need of repair (see Appendix E, Photographs 7 through 10). The downed area of the silt fence appeared to receive drainage from an area of disturbed soil that formed a gully at the edge of a recently constructed wall.

2.1.2. The City did not have a standard procedure for recording inspection activities at public construction sites to ensure that thorough inspections were being conducted.

Section S5.C.5.b.vi of the Permit states that the City's program shall "include a procedure for keeping records of inspections and enforcement actions by staff, including inspection reports, warning letters, notices of violations, and other enforcement records."

During the site inspections at various City-owned construction sites, City staff indicated that a TESC inspector and/or geotechnical specialist were assigned to conduct inspections of TESC BMPs at the assigned site. The EPA Inspection Team interviewed several TESC inspectors and geotechnical specialists during the site inspections to determine the inspectors' methods of documenting inspection activities. The site inspectors explained that they were responsible for conducting daily inspections at their assigned site to assess the condition and effectiveness of TESC BMPs. The site inspectors also stated that they did not have a formal checklist or template for recording inspection observations, but instead kept notes pertaining to conditions at the each site in a designated log book.

The EPA Inspection Team visited the Washington Park Arboretum Project, a City-owned construction site that was near completion. The City inspectors at this site used a "Site Inspection Report" form and provided the EPA Inspection Team with several examples of completed site inspection reports (Appendix D, Exhibit 3) which included the time, place, weather conditions, description of work inspected, discrepancies noted at the site, and photos from the inspection event. In addition, Parks project managers performed TESC inspections at Parks projects and had generated site inspection reports from various sites including the Greenwood Park Sport Court Project and the Northgate Urban Park Project (Appendix D, Exhibit 4). The "Site Inspection Report" form used by Parks project managers were standardized and appeared to be effective in assessing sites for

pollution-generating sources and TESC effectiveness and for documenting inspection activities.

Although different departments within the City's stormwater management program were able to provide documentation of inspection activities, only the Parks department could provide a standardized inspection report form.

2.1.3. Concerns were noted pertaining to consistent construction of permanent stormwater flow and treatment control facilities in accordance with approved plans at private sites.

Section S5.C.5.b.vi of the Permit states that the City shall "inspect all development sites that meet the thresholds in S5.C.5.b.i, upon completion of construction and prior to final approval/occupancy to verify proper installation of permanent erosion controls and stormwater facilities/BMPs."

According to page II.9-3 of the City's 2013 SWMP Plan, the DPD is responsible for conducting inspections of private stormwater facilities in new development during construction. In addition, the SC group is responsible for conducting inspections of privately-owned stormwater flow control and treatment facilities that drain to the City's MS4 after construction has been completed and the DPD has issued a certificate of occupancy. The purpose of these inspections is to determine if systems function as designed and are being properly maintained.

According to City staff, the DPD inspectors conduct inspections at active construction sites where stormwater facilities are being installed. SC inspectors interviewed during the inspection stated that it was common to observe discrepancies between the approved site plans, which specify BMP locations and type, and the as-built facilities. The SC inspectors stated that in some instances minor aspects of the final configuration might differ from the approved site plan, such as an alternate maintenance opening location or alternate maintenance requirements from the original site plan. In more select instances, they observed significant alterations in the location, design, or intended operation of a facility. The SC inspectors noted that the inconsistency between the approved site plan and final project had been observed on a relatively frequent basis.

The EPA Inspection Team had concerns that DPD had failed to conduct adequate and thorough inspections of the private stormwater facilities to ensure that the facilities are being built in accordance with the approved site plan before the certificate of occupancy is issued. In addition, the City lacked a procedure to ensure that the modifications to the design of stormwater facilities that occur during the construction process are reviewed for adequacy and are included in the site plan.

Section 2.2 Operation and Maintenance Program

Section S5.C.9.a of the Permit requires the City's SWMP to include a program to conduct and regulate maintenance activities to prevent or reduce stormwater impacts. Pursuant to the Permit, pages 11.9-1 through 11.9-2 of the City's 2013 SWMP Plan outline minimum

performance measures to implement during operation and maintenance activities at City-owned properties and stormwater facilities, as well as at private stormwater facilities.

On July 15–16, 2013 the EPA Inspection Team conducted site visits at four properties owned and operated by the City. The primary purpose of the visits was to observe the City's process for developing and implementing stormwater pollution prevention plans (SWPPPs) at its properties. Summary observations pertaining to the properties are presented below due to their direct relevance to the City's obligations under the Permit.

The EPA Inspection Team also visited three stormwater facilities as part of the inspection. The purpose of these site visits was to better understand the City's oversight of the operation and maintenance of both public and private stormwater facilities. No deficiencies were observed at these locations; therefore the observations are not included in this report.

2.2.1. Concerns were noted pertaining to the City's tracking system for Green Stormwater Infrastructure (GSI) facility maintenance.

Section S5.C.9.b.ii(1) of the Permit states that the City must "implement ordinances or other enforceable documents requiring maintenance of all permanent stormwater treatment and flow control facilities regulated by the Permittee (including catch basins), in accordance with the maintenance standards established under S5.C.9.b.i."

During the inspection, City staff stated that maintenance activities for public GSI facilities were tracked by three methods: (1) recording the activities on as-built drawings, (2) using Key Performance Indicator (KPI) forms (see Appendix D, Exhibit 5) which provide maintenance grades and comments for some types of GSI, and (3) by invoicing the maintenance activities conducted by the City's contractor (see Appendix D, Exhibit 6), Conservation Corps, who performs inspections and maintenance at public GSI facilities. City staff stated that they did not have a formal spreadsheet or other method to track completed inspections and maintenance.

2.2.2. Concerns pertaining to improper pollution prevention practices and SWPPP implementation were noted during site visits at City-owned properties.

Section S5.C.9.b.ix of the Permit requires the City to develop and implement a SWPPP for all heavy equipment maintenance or storage yards and material storage facilities owned or operated by the City in the area subject to the Permit that are not required to have coverage under the *General NPDES Permit for Stormwater Discharges Associated with Industrial Activities* or another NPDES permit that covers stormwater discharges associated with the activity.

The EPA Inspection Team visited the Sunny Jim Roads Maintenance Yard, Seattle City Light South Service Center, and Jefferson Park Horticulture Center, all of which are owned and operated by the City. SWPPPs had been developed for these properties, and should therefore be fully implemented. The SWPPPs for the Sunny Jim Maintenance

Yard, Seattle City Light Center, and Jefferson Park Horticulture Center were available for review during the site visits.

Sunny Jim Maintenance Yard – 4200 Airport Way; Seattle, Washington

The Sunny Jim Maintenance Yard is an SDOT sign manufacturing shop which consists of one large building and a storage yard on a 4.3-acre parcel. The primary activities at the facility include traffic signal maintenance operations, traffic sign manufacturing, and a base for traffic signs and marking crews. The EPA Inspection Team reviewed the property SWPPP BMPs and compared the SWPPP (see Appendix D, Exhibit 7) requirements to the site conditions.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the Sunny Jim Maintenance Yard:

1. Two rusted paint cans and two cans containing traffic paint were observed near the entrance of the property without secondary containment (see Appendix E, Photograph 11). In addition, open, uncovered paint containers were observed behind the dumpsters in the southeast area of the property (see Appendix E, Photographs 12 and 13). The paint cans were stored on top of an inverted garbage can without secondary containment BMPs.
2. Reflective beads used for pavement striping were observed on pervious ground and pavement surfaces in the central area of the property (see Appendix E, Photograph 14). The reflective beads appeared to have discharged from a ripped bag. City staff stated that the beads were swept up once per day.

Seattle City Light, South Service Center – 3613 Fourth Avenue S.; Seattle, Washington

The Seattle City Light South Service Center is a City-owned property which consists of a yard used for vehicle and electrical equipment storage, equipment maintenance, and electrical equipment salvage. The following activities are generally conducted at the property: (1) tools, parts, equipment, and vehicle cleaning and washing; (2) vehicle and electrical equipment maintenance; (3) vehicle fueling at dedicated station; (4) storage of vehicles, electrical equipment, and liquids in above ground storage tanks. The EPA Inspection Team reviewed the property SWPPP BMPs and compared the SWPPP (see Appendix D, Exhibit 8) requirements to the site conditions.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the Seattle City Light South Service Center:

1. A mop, bucket, cleaning solution, and a trash can which contained an unidentified liquid were stored close to a storm drain inlet (see Appendix E, Photograph 15). Secondary containment BMPs were not provided for the items to prevent spills from entering into the storm drain. The items were stored near what appeared to be a maintenance shed in the northwest area of the materials storage yard. It should be noted that the detergent observed onsite contained hydrogen peroxide and is listed as a water soluble cleaner.

2. Multiple petroleum product stains were observed on the pavement of the partially covered loading dock and vehicle storage area in the eastern part of the property (see Appendix E, Photographs 16, 17, and 18). The areas where the petroleum product staining was observed did not have overhead coverage. The property representative stated that the loading dock and vehicle storage area were located in an area of the property from which the stormwater drains to the combined sewer system. According to the property's SWPPP, Section 7.5, BMP 5 – spill prevention and cleanup, "Leaks and spills of solid and liquid pollutants including oils, solvents, and fuels on any exposed soil, vegetation, or paved area must be promptly contained and cleaned up." Table 3 states that vehicle leaks on pavements are to be covered with kitty litter. Drip pans are also to be used under leaky vehicles.
3. A 5-gallon bucket of modified waterborne acrylate (coating used to repair hairline fractures on the exterior of buildings) was observed at the property without overhead coverage or secondary containment BMPs (see Appendix E, Photograph 19).

Jefferson Park Horticulture Center –1600 South Dakota Street; Seattle, Washington

The Jefferson Park Horticulture Center is a City-owned property consisting of a greenhouse, plant storage areas, and various heavy machinery and equipment used for City landscaping projects. The property supervisor (property SWPPP coordinator) stated that some areas of the property drained to the storm drain inlets and other areas (mainly vehicle washing stations) drained to an oil water separator before discharging to the sanitary sewer. The EPA Inspection Team reviewed the property SWPPP BMPs and compared the SWPPP (see Appendix D, Exhibit 9) requirements to the site conditions.

The EPA Inspection Team observed the following with regard to pollution prevention and good housekeeping at the Jefferson Park Horticulture Center:

1. The pavement in the central area of the property had staining from irrigation waters, which provided evidence of these waters entering into a nearby storm drain inlet (see Appendix E, Photographs 20 and 21). In accordance with section 6.0 of the property's SWPPP, Illicit Non-stormwater Discharges, the *City of Seattle Municipal Stormwater Code* prohibits the discharge of the pesticides, fertilizers, and herbicides into the City's drainage system. Due to the nature of the activities occurring at the property and the staining on the pavement, it is reasonable to believe that the irrigation water for plants may contain added fertilizers and/or herbicides. Specific BMPs for the outdoor plant storage portion of the Horticulture Center are not identified in the SWPPP.
2. An automotive battery was stored behind a storage building at the southeast corner of the property without overhead coverage or secondary containment (see Appendix E, Photograph 22).